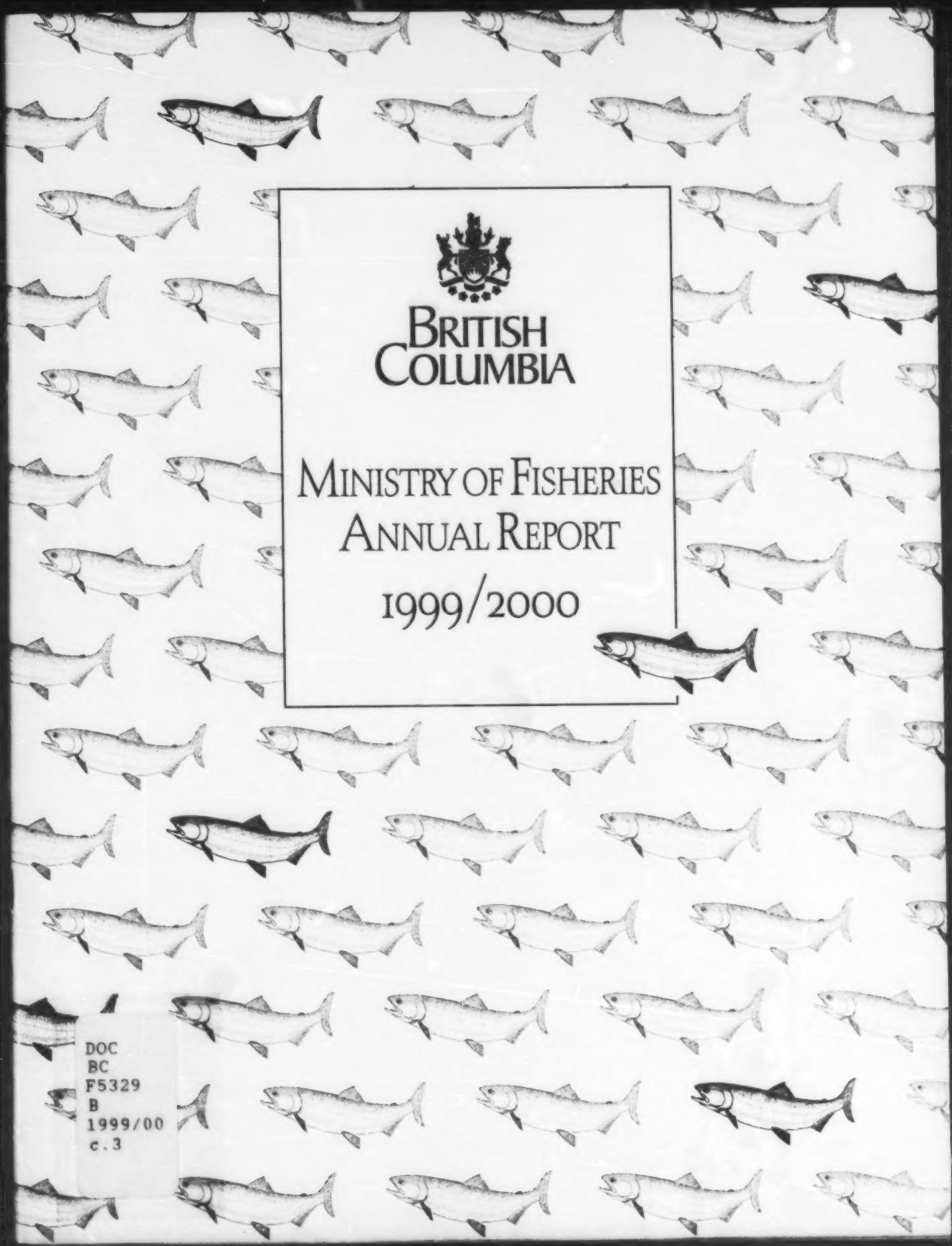

BRITISH COLUMBIA

MINISTRY OF FISHERIES ANNUAL REPORT 1999/2000

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BRITISH COLUMBIA

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June 2000

The Honourable Garde B. Gardom
Lieutenant Governor
Province of British Columbia

May it please your Honour,

I respectfully submit the annual report of the Ministry of Fisheries of the Province of British Columbia for the fiscal year ending March 31, 2000.

Sincerely,

The Honourable Corky Evans
Minister of Agriculture, Food and Fisheries and
Minister Responsible for Rural Development.

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MINISTER'S MESSAGE

The year was one of both impressive growth and serious decline in British Columbia's $2-billion fishing industry. The continuing decline in traditional fisheries brought hardship to fishing communities, First Nations, commercial and recreational fishers. On the plus side, growth in value-added processing, salmon and shellfish aquaculture, and along with opportunities in new species and the non-tidal recreational fishery created jobs and economic development.

The Ministry of Fisheries addressed decline and assisted growth through conservation programs, sustainable fisheries, and effective partnerships with First Nations, coastal and rural communities, industry, environmental groups and all orders of government.

The ministry supported provincial fisheries through the conservation of native fish populations and their habitat. Our Urban Salmon Habitat Program provided $920,000 in grants to local governments and community stewardship groups. The ministry also invested $3.1 million from the Habitat Conservation Trust Fund in fisheries programs designed to conserve, protect and rehabilitate freshwater fisheries. The ministry is committed to preserving the biological base of fisheries as a vital part of the environment and to provide resources for sustainable development.

The ministry initiated the shellfish development program to encourage growth of the provincial shellfish aquaculture industry and enhance the economic stability of the industry and coastal communities. The province also announced a new salmon aquaculture policy to ensure a viable and environmentally sustainable industry.
The Ministry of Fisheries led the development and implementation of this policy that will provide important economic opportunities to the residents of coastal communities.

None of our efforts could have prevented the collapse of the 1999 Fraser Sockeye run which effectively eliminated the Fraser River commercial harvest. The absence of fish severely affected many coastal and rural communities. The ministry responded in consultation with those communities by pressing the federal government to provide effective assistance to affected communities. While supporting federal plans to restructure the fishing fleet, The Ministry of Fisheries continued to work with all orders of government, communities, First Nations, and industry to revitalize, not reduce, B.C.'s fisheries and its communities.

Ministry staff consulted with First Nations, communities, industry, and municipalities, commercial and recreational fishers and environmental groups to shape and guide the scope and direction of emerging and new fisheries. The ministry facilitated discussions, provided specialized advice and solutions to British Columbians embracing new development and diversification opportunities.

The ministry also established joint projects in aquaculture, new species development, habitat and a range of other issues with the federal government through the Canada/BC Agreement on Interjurisdictional Co-operation with Respect to Fisheries and Aquaculture.

In March 2000, the Ministry of Fisheries was amalgamated into the new Ministry of Agriculture, Food and Fisheries. The new ministry combines the responsibilities for agriculture and food with those for fisheries, Fisheries Renewal BC and rural development. The Ministry of Fisheries retains its own programs, budget, executive and deputy minister to deliver the province's commitment to fisheries in our economy and society.

Finally, the ministry has a new upgraded Internet site to serve anglers, businesses, commercial fishers, and all those who have an interest in B.C. fisheries. Our fast-changing fisheries need the latest in communication tools to speed communications, information sharing and dialogue.

MISSION STATEMENT

The Ministry of Fisheries leads the provincial government's efforts to build and sustain diverse and healthy fish populations, fisheries, jobs and communities.

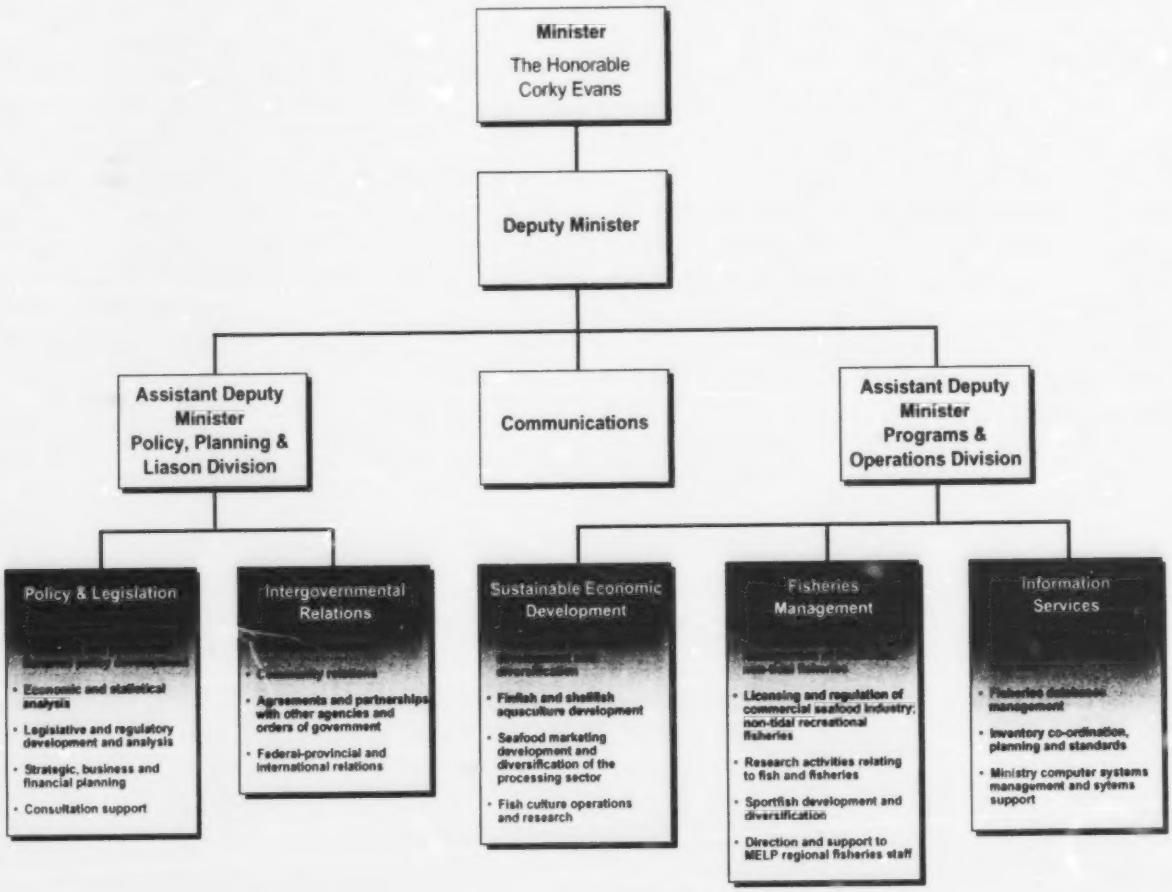
The Ministry of Fisheries planned, designed and delivered high quality, cost-effective, accountable services to everyone involved in the province's fisheries. Staff pursued this goal through a spirit of teamwork and co-operation based on trust, integrity, flexibility, innovation, social equity and equality of opportunity.

MINISTRY PROFILE

The Ministry of Fisheries was established in February 1998 to provide a strong co-ordinated focus to provincial efforts to protect fish stocks and renew B.C.'s commercial and recreational fisheries. The ministry's work reflected the changing dynamics and challenges affecting B.C.'s fish resources and fisheries including:

- the need to protect fish and fish habitat from encroaching urban and resource development;
- the impacts of restructuring in the commercial fishing industry on the lives of thousands of people and their communities;
- the growing economic importance of tidal and non-tidal recreational fishing throughout the province;
- the international growth of aquaculture in the seafood industry;
- the need to develop new, value-added industries to maximize the economic benefits from fisheries resources and diversify fishing communities.

MINISTRY ORGANIZATION CHART
September 2000


Minister
The Honorable
Corky Evans
Deputy Minister
Assistant Deputy Minister
Policy, Planning & Liason Division
Communications
Assistant Deputy Minister
Programs & Operations Division
Policy & Legislation
Economic and statistical analysis
Legislative and regulatory development and analysis
Strategic, business and financial planning
Consultation support
Intergovernmental Relations
Agreements and partnerships with other agencies and orders of government
Federal-provincial and international relations
Sustainable Economic Development
Finfish and shellfish aquaculture development
Seafood marketing development and diversification of the processing sector
Fish culture operations and research
Fisheries Management
Licensing and regulation of commercial seafood industry; non-tidal recreational fisheries
Research activities relating to fish and fisheries
Sportfish development and diversification
Direction and support to MELP regional fisheries staff
Information Services
Inventory co-ordination, planning and standards
Ministry computer systems management and sytems support

MINISTRY ACTIVITIES

▲ *Fish Conservation and Protection*

Ministry staff worked with Ministry of Environment, Lands and Parks staff to continue effective, fish and fish habitat conservation and restoration programs.

▲ *Management of B.C.'s growing recreational fishery*

The ministry continued to work with the saltwater and freshwater recreational fishing sectors to generate jobs and recreational opportunities while continuing the conservation and management of a world-class freshwater fishery.

▲ *Management, regulation and development of B.C.'s diverse and—dynamic seafood industry*

The ministry continued to expand provincial efforts to develop sustainable, value-added fisheries industries, in the commercial fishing, aquaculture and processing sectors, which provide secure jobs and long-term economic stability for communities

▲ *Effective co-ordination of B.C.'s investments in protecting fish-and creating jobs in the fisheries*

B.C. spends $150 million annually protect and restore fish and fish habitat. Programs such as the Urban Salmon Habitat Program and the Habitat Conservation Trust Fund continued the Ministry of Fisheries commitment to habitat.

▲ *Strengthening our co-operative approach to fisheries management*

The ministry continued to be responsible for the implementation of several important agreements concluded with the federal government over the past few years. These included the 1997 Canada-B.C. Agreement on the Management of Pacific Salmon Fishery Issues, the Groundfish Development Authority Agreement and the Memorandum of Understanding on Fisheries and Seafood Diversification.

Conservation of Native Fish Populations and Habitats

- The Ministry of Fisheries, and the Ministry of Environment, Lands and Parks, continued to manage and co-ordinate the investment by Forest Renewal BC in fish and fish habitat inventory. In 1999/2000 FRBC invested more than $10 million in fish and fish habitat inventory including 220 projects on the provincial forest land base. The fish and fish habitat inventory program provides information on fish species distribution and habitat capability to support fisheries conservation, and provides information on the presence of fish-bearing streams to support forest licensee obligations under the Forest Practices Code.

- In 1999-2000 $920,000 was provided through the Urban Salmon Habitat Program for projects that protect, restore and raise public awareness of salmonids and their habitats, and for environmental projects geared toward the conservation of salmonid streams. The program has two components – community stewardship and local governments. Through the community stewardship component, 31 community groups and schools shared $387,032 for salmon conservation projects in the Georgia Basin. Another $532,968 was shared by 24 local governments for cost-shared environmental projects aimed at the conservation and protection of salmonid streams. The remaining funding was used for training and workshops to improve the program.

- Wild steelhead status on east coast Vancouver Island streams remained critically low in 1999 and the ministry, in co-operation with the Ministry of Environment Lands and Parks, continued the experimental Living Gene Bank Program (LGB) at the Vancouver Island Trout Hatchery. The LGB program involves capturing wild steelhead smolts as they migrate from freshwater streams to the ocean and culturing these fish until they mature as adults. LGB adults are then spawned and their progeny used to restock their host streams. The ultimate objective is to rebuild wild populations to a sustainable level. Wild smolts were captured for the LGB in 1998 and 1999, and most smolts have made a successful transition to captivity. The first mature fish were spawned in the winter of 1999/2000.

- Intensive stock assessment is an essential activity to assess the status of wild populations and their interactions with the LGB steelhead. In 1999, the ministry provided $70,000 in funding to the Ministry of Environment, Lands and Parks for wild steelhead stock assessment on East Coast Vancouver Island streams.

- The Ministry of Fisheries and the Kootenai Tribe of Idaho have been working together since 1997 to save endangered Kootenay River white sturgeon from extinction. The construction of a sturgeon recovery hatchery was completed in August 1998 at the ministry's Kootenay Trout Hatchery near Cranbrook. The first sturgeon eggs arrived from Idaho in June 1999 and the young sturgeon did very well. At 15 months of age (September 2000), they will be released into the Kootenai River near Bonner's Ferry,

Idaho. From there they will hopefully spread throughout the Kootenai River system into Montana and north to Kootenay Lake in B.C.

- The Ministry of Fisheries continued restoration work on large lakes and reservoirs throughout the province in 1999/2000. Fertilization to restore Kokanee on Kootenay Lake was particularly successful. Restoration activities on Arrow Reservoir and Alouette Lake also produced encouraging results and ministry staff investigated the feasibility of a commercial harvest on mysid shrimp as a means to restore kokanee numbers in Okanagan Lake.

- The Ministry of Fisheries Fish Culture Section continued development and evaluation of non-reproductive strains of trout for stocking programs. Non-reproductive fish cannot interbreed with wild fish; therefore stocking programs can take place with less risk of impacts on wild populations.

- The joint federal-provincial Fisheries Project Registry, a map-enabled database management system, was completed and made available on the Internet. The Fisheries Project Registry contains data about the existence, general nature, location and key contacts for specific categories of fisheries-related projects including inventory, assessment, research, restoration and enhancement and economic development. Currently more than 1,500 projects from most of the major provincial funding agencies are included. The registry is intended to improve federal-provincial data sharing and to reduce duplication and overlap.

- The ministry administered and implemented 56 projects worth more than $3.1 million through the fisheries component of the Habitat Conservation Trust Fund. The fund is supported by surcharges on angling, hunting, guiding and trapping licences. The projects included such diverse activities as the Okanagan Lake Recovery Plan, the five-year Fraser River Sturgeon Program and stock assessment for steelhead on the Bella Coola River.

- Working in partnership with B.C. Hydro and the Ministry of Environment, Lands and Parks, the ministry co-ordinated fisheries compensation programs worth more than $2.2 million for the Columbia and Peace River drainage's. Projects ranged from work on Arctic grayling research in the Peace to lake fertilization programs on Kootenay Lake and co-operative stocking programs in hydro reservoirs.

- The ministry co-ordinated the fisheries components of the Water Use Planing Program (WUP) to restore water flows for fish in river systems regulated by hydroelectric facilities. WUP's were completed on the Alouette and Stave Rivers and six more are under way on the Campbell, Chekamus, Bridge, Coquitlam, Shuswap and Jordan rivers. Staff also developed water-use planning guidelines and implemented interim water-flow orders on eight river systems to ensure water for fish and began a series of water use plans which will determine future flow regimes.

Co-operative Relationships and Partnerships

The ministry continued to build strong partnerships and co-operative relationships with the public, industry, First Nations and federal and provincial agencies throughout 1999/2000. These partnerships ensured the delivery of fisheries-related programs and informed decision making with regard to the future of the resource.

Pacific Salmon Treaty

After years of dispute over harvest sharing and implementation of the fundamental principles upon which the 1985 Canada/US Pacific Salmon Treaty (PST) is based, Canada and the United States (U.S.) announced they had reached a comprehensive 10-year deal in June 1999. The government of Canada negotiated the agreement deal with representatives of the U.S., Alaska, Washington, Oregon and the U.S. Tribes but excluded British Columbia.

While B.C. continues to believe in the PST and its fundamental principles, concerns remain about the new PST deal and its provisions. Analysis indicates that it falls short on the key objectives of conservation, fair sharing, and the provisions that are made in areas of provincial jurisdiction. The Province is concerned about impacts on coastal communities, and that the significant inequity in the imbalance of fisheries interceptions in favour of the US may continue, particularly on the North Coast.

Nonetheless, B.C. is committed to continue working with Canada and the U.S. within the current treaty arrangements to best serve the interests of fish and British Columbians.

Hake

The Ministry continued negotiations with U.S. representatives to set a fairer catch arrangement on international sharing and conservation of hake. The hake negotiation between Canada and the US did not result in an agreement, but the parties agreed to meet again to work towards a common solution for long-term management and harvest sharing arrangements.

Tuna

B.C. is working with industry and the federal government to negotiate a new multilateral convention for the conservation and management of tuna stocks in the central and western Pacific Ocean. The ministry has supported the development of the multilateral Pacific tuna convention, in view of the growing interest of B.C. fishers and industry in this underutilized resource.

Information Dissemination

The ministry improved its ability to provide information to all stakeholders by developing the Ministry of Fisheries Web site. This new web site provides up-to-date information about the ministry's programs and services, key initiatives and current news. The Web site also includes access to the on-line government Fisheries Data Warehouse that has our most current information about B.C. streams and lakes and the fish in them.

Data Sharing

On May 18, 1999 the Ministry of Fisheries and the Department of Fisheries and Oceans Ministers endorsed a *Sub-Agreement respecting Fisheries Information Coordination and Sharing* (Sub-Agreement) to the 1997 *Canada-British Columbia Agreement on the Management of Pacific Salmon Fishery Issues* (Canada-B.C. Agreement). This sub-agreement enables free exchange of core fisheries data sets and establishes a fisheries information co-ordinating committee to recommend sharing of information owned by either government.

A basic version of a Canada-B.C. Fisheries Data Warehouse has been functioning since March 1999. Fisheries and Oceans Canada now has access to the provincially managed Watershed Atlas and Fisheries Information Summary System. Co-operative work continues on new sharable versions of the federal salmon escapement system and commercial catch statistics. The two agencies, and Fisheries Renewal B.C., have developed a Fisheries Project Registry, accessible on the Internet. The Ministry of Fisheries and Fisheries and Oceans Canada have also co-operated on development of the FishWizard, interactive Web access to fisheries-related information stored in government data sets. The ministry is using its information technology to support office automation and the expanded role of the Internet in the dissemination of information.

Steelhead

The Ministry of Fisheries and Fisheries and Oceans Canada developed a Steelhead Protocol Under Section 4.4 of the 1997 *Canada-British Columbia Agreement on the Management of Pacific Salmon Fishery Issues*, which calls for the development of joint steelhead management protocols for key stocks and watersheds. The development of such protocols will support the overall objectives of the agreement, including improved co-operation among governments and an enhanced role for British Columbia in the management of fisheries issues.

The objectives of the Steelhead Protocol recognize the evolving role of First Nations in the management of the fisheries resource, and include:

- enhanced communication and co-operation between governments;
- improved and timely data sharing and exchange of scientific information;
- mutual agreement of interpretations of information prior to public release;
- an improved planning framework and joint development of policy, management objectives, and management tools, where appropriate;
- an in-season dispute resolution mechanism; and
- Improved and co-ordinated consultative processes.

The Steelhead Protocol has been in effect over the last year in both the Skeena and Fraser systems. The Ministry of Fisheries supports and funds this major initiative via the Skeena Conservation Alliance. The Skeena Conservation Alliance is a multi-stakeholder committee established to facilitate co-ordinated development of fishing plans and conservation activities. The Ministry of Fisheries, DFO, and First Nations are jointly developing Fraser River steelhead stock assessment, fishery models, and counting facilities.

Interjurisdictional Co-operation

Federal, provincial and territorial governments endorsed the *Agreement on Interjurisdictional Co-operation with respect to Fisheries and Aquaculture* on June 15, 1999. British Columbia was an active participant in the negotiations and instrumental in the development of the agreement.

The agreement enables more regular and more effective opportunities for consultation on fisheries. It is based on timely consultation, information sharing in advance of announcements, transparency and accountability. As this is an agreement that is national in scope, it is a door to international co-operation, dialogue, and information exchange on fisheries of mutual interest.

Canadian Council of Fisheries and Aquaculture Ministers (CCFAM)

The CCFAM's work plan established in September 1999 focuses on sustainable fisheries for the future and economic opportunities.

Under these areas the priorities include:

- developing a shared national vision for freshwater resource management;
- finalizing a national policy regarding introductions and transfers of aquatic organisms;
- fulfilling Canada's commitment to produce a national plan of action for capacity reduction by 2003;
- implementing a federal aquaculture development strategy;
- developing a national policy that facilitates new opportunities through sustainable fisheries diversification; and
- Identifying the next steps for recreational fisheries development.

Individual task groups co-chaired by the two jurisdictions have been created to address each priority. British Columbia currently participates in all working groups and co-chairs the aquaculture working group.

Habitat

The Ministry of Fisheries, ~~T~~the Department of Fisheries and Oceans B.C and the Ministry of Environment, Lands and Parks (MELP) are currently in the process of negotiating the *Canada-British Columbia Fish Habitat Protection Agreement.* The agreement will apply to all fish and fish habitat in B.C. under the resource and habitat protection provisions of the 1997 *Canada-B.C. Agreement on the Management of Pacific Salmon Fishery Issues.*

The agreement requires Canada and B.C. to:

- establish clear, comprehensive and harmonized policies, standards, guidelines, and procedures to guide decisions in protecting fish habitat;
- co-ordinate work activities to ensure comprehensive and effective protection of fish habitat, and that decisions are made in an efficient and timely manner;
- pursue co-operative arrangements with local governments, First Nations, industries, and non-government organizations to enhance the protection of fish habitat; and,
- Monitor, evaluate, and report on the implementation and ongoing delivery of this agreement.

Pacific Legislative Task Force

In March 2000, Agriculture, Food and Fisheries Minister Corky Evans was invited to join the Pacific Fisheries Legislative Task Force. The task force of U.S. state legislators amended its bylaws to enable B.C. to become a full participating member.

The Pacific Fisheries Legislative Task Force was formed in 1985 to focus on commercial and sport fisheries, aquaculture and seafood issues. Its goals include:

- Advocating actions for healthy fisheries now and in the future.
- Co-operating with and making recommendations to federal, interstate and international fishery agencies, including fishery management councils, fishery and seafood development foundations and the Pacific States Marine Fisheries Commission.
- Monitoring congressional actions relevant to Pacific Coast fisheries.
- Promoting co-operation among the Pacific states on legislation and administrative matters affecting common fishery issues and serving as a clearing house for information and opinions from all interested parties.
- Reporting to the legislatures of members on means of protecting and enhancing Pacific fisheries.

Membership in the Pacific Fisheries Legislative Task Force, with legislators from Alaska, California, Washington, Idaho, and Oregon, provides an good opportunity to represent the Ministry of Fisheries and to address Pacific fisheries issues co-operatively with other jurisdictions

Relations with First Nations

- The Nisga'a Final Agreement Act received Royal Assent in January 2000. The fisheries provisions of the treaty address Nisga'a harvest rights, the rights to disposal of harvest, Nisga'a participation in the commercial fishery and aquaculture management. The ministry is working to implement the Nisga'a Final Agreement Act provisions related to fisheries.
- In March 2000, the province and the British Columbia Aboriginal Fisheries Commission concluded the terms of the Agreement of Fisheries Information Exchange. The agreement established a process that allows the British Columbia Aboriginal Fisheries Commission to provide First Nations' input early in the development of legislative, policy and program initiatives.
- Within the B.C. treaty Process the ministry has supported negotiations of treaties and

interim measures agreements by providing advice and technical information to the Ministry of Aboriginal Affairs. B.C., Canada and the Sechelt Nation signed a treaty Agreement-in-Principle in the spring of 1999.

- ▲ The ministry is developing a reference brochure and training model for ministry staff in program delivery, licensing and other areas to ensure consultations with First Nations are adequately addressed.
- ▲ Standard B.C. Watershed Atlas maps for treaty Statement of Intent areas have been prepared as a base for display of fisheries information.Relations with Communities
- ▲ The ministry has supported the Coastal Community Network in its efforts to provide a forum for discussion, co-ordination and policy advice.
- ▲ The ministry has participated in negotiations with the Department of Fisheries and Oceans, the Nuu-chah-nulth Tribal Council and local governments supported by interest groups to develop a pilot regional fisheries management board on the West Coast of Vancouver Island.

The branch also developed a ministry reference brochure and training model to ensure consultations with First Nations are adequately addressed . The consultation brochure will guide ministry staff in program delivery, licensing and other areas.

Partnerships and Legislation

Policy Initiatives Included:

- ▲ Creation of a Business Continuation Plan, part of a government wide-initiative, to set out the steps taken following notification of a disaster in order to recover business functions in a timely manner.
- ▲ An evaluation of the program delivery and impacts over the first five years of operation of the Urban Salmon Habitat Program.
- ▲ Participation in discussions with the Department of Fisheries and Oceans and the Sport Fish Advisory Board on expanding its role to provide advice to the province.
- ▲ Commencing a public review of the Angling Guide Management System and Classified Waters policy.
- ▲ Providing analysis of the impact of federal policies and adjustment strategies affecting B.C.'s fisheries and aquaculture sector.

The Ministry of Fisheries liaised with the Ministry of Community Development, Co-operatives and Volunteers and other provincial agencies to ensure provincial input and involvement in the Community Economic Adjustment Initiative (CEAI) under the federal Pacific Fisheries Adjustment and Renewal program.

- The ministry commissioned a report by GS Gislason & Associates to determine the economic and employment impacts of the closure of the Fraser River Sockeye Fishery. The report entitled The *1999 Fraser River Sockeye Fishery: A Lost Year* was released in 1999.
- Copley and Associates Consulting conducted a review of the current situation in the fisheries in B.C. and its impact on people and communities. The ministry provided overall direction to the review in co-operation with the Ministry of Community Development, Co-operatives and Volunteers. The Fisheries Communities Review report was released in December 1999.
- Staff provided assistance in developing the policy framework for Cabinet approval for the Salmon Aquaculture Policy.

Legislative Initiatives

Ministry staff undertook a number of legislative initiatives including:

- A review of the legislative framework for finfish aquaculture following the announcement of the Salmon Aquaculture Policy on October 18, 1999.
- A number of miscellaneous amendments to ministry legislation including amendments to the *Wildlife Act* and *Fisheries Act* and regulatory amendments under the *Fisheries Renewal Act* and *Fisheries Act (B.C.).*

The Ministry of Fisheries made statutory appointments to a number of boards and agencies under its legislation in 1999/2000 including re-appointments to the Board of Directors of Fisheries Renewal BC and the BC Salmon Marketing Council.

Economic and Statistical Analysis

Ministry staff conducted a broad range of socio-economic, statistical research and analysis including the collection and publication of:

- The Seafood Industry Year in Review (SIYR);
- Annual Fisheries Production Statistics of B.C.;
- Weekly B.C. Canned Salmon Pack bulletins; and
- Tri-annual Fish Processing Sector employment survey.
- The ministry commissioned BC Statistics to estimate the gross domestic product, revenue, employment and earnings of the province's fisheries and aquaculture sector.

The report entitled *British Columbia's Fisheries and Aquaculture Sector* was released in February 2000. The report provides comparable data for each of the four components of the sector: commercial fisheries, aquaculture, fish processing and recreational fisheries.

▲ Staff also completed the pilot phase of an economic impact assessment of freshwater and tidal sport-fishing businesses in co-operation with other provincial ministries and the federal government. This study will create a standard assessment tool to define accurately the economic benefits generated by both freshwater and tidal sport-fishing activities.

Fisheries Renewal BC

The Minister of Agriculture, Food and Fisheries is responsible for Fisheries Renewal BC (FsRBC), a key component of the province's strategy to renew fisheries in B.C. The Crown Corporation funds initiatives and projects where communities develop and deliver programs to restore their fish resources and revitalize their fisheries. FsRBC produces its own annual report and performance plan.

Development and Diversification

Commercial Fisheries, Aquaculture and Seafood-Processing Sectors

The ministry, in co-operation with industry and the federal Department of Fisheries and Oceans, continued to support the development of fisheries for new and under-utilized species in 1999/2000. Terms of reference were established for a Fisheries and Seafood Diversification Board which will provide both the ministry and DFO with scientific and business advice on new fisheries.

Seafood Development and Diversification

The ministry continued to support seafood sector projects that foster industry diversification, sector competitiveness and new work opportunities. Provincial programs supported industry and community proposals for new and developing fisheries, value-added product development, technology transfer, skill development and business and market intelligence services.

More than $30 million in new wholesale value was generated from secondary seafood processing in 1999. This is evidence that the seafood sector has progressively diversified its capability to produce value-added products, consumer ready products, and increase its utilization of raw material. Introduction of new technologies, new market opportunities and improved sector skills are providing the industry with the essential tools to diversify and compete in the world food market.

New and Developing Fisheries

A *Memorandum of Understanding on Fisheries and Seafood Diversification* was signed in December 1995. Since that time, the Federal/Provincial Seafood Diversification Committee has made steady progress in implementing the MOU. Progress to date includes:

- Work on policy for developing new fisheries
- Development of terms of reference for the Fisheries and Seafood Diversification Board
- Several pilot fisheries (neon flying squid, sardine, deepwater tanner crab, mackerel)
- B.C.'s presence at the European Seafood Exposition
- Evaluation of new fisheries for hagfish, box crab, purple sea urchins; and funding of sablefish and halibut aquaculture research (sponsored through the federal Fisheries Development Program).

- Development of the In-Plant Quality Control manual for the deepwater Tanner crab fisheries; on-board handling guidelines for the development of the deepwater tanner crab fisheries; quality manual for on-board handling of Pacific sardines.
- Development and delivery of a value-added seafood processing course.

Innovative Technology Development (Value-Added Products, New Product Development and Further Product Utilization)

An MOU with the Information, Science and Technology Agency led to the *Fisheries Development and Diversification Program* (FDDP) in 1992. The program focuses on the development and evaluation of technology. Over the past year $140,000 was spent on seven projects. The projects are pre-competitive, pre-commercial and designed to address economic and competitive issues within the seafood industry.

Under the FDDP, The Ministry of Fisheries has worked in co-operation with the BC Seafood Sector Council to:

- identify new market opportunities for traditional species in Europe and the U.S.;
- support the development of "value-added" processing of previously under-utilized species such as spiny dogfish and arrowtooth flounder; and
- Support secondary processing of traditional species such as salmon through development of new products like canned flake salmon, salmon burgers and salted or smoked products.

Commercial Seafood Licensing, Inspection and Enforcement Program

The licensing and Enforcement Program continued to play a key role in the regulation of the commercial seafood industry by adjudicating and issuing licenses covering a wide range of activities, including fish buying, selling, transporting and processing within the province, and marine plant and wild oyster harvesting.

Skill Development and Training

The Ministry of Fisheries initiated the *New Work Opportunities Program* in partnership with the BC Seafood Sector Council, Human Resources Development Canada and the Ministry of Social Development and Economic Security. The program provides workshops on the New Work Opportunity process and extension services to communities and industry. The program delivers a course through extension, designed to provide skills to improve existing work and to develop new work opportunities. Following the initial training,

the program works directly with industry to assess the risks associated with the new "opportunity", and to develop subsequent business plans if deemed appropriate.

As part of the *Advisory Committee to Fish Harvesting and Processing Technology Program*[1], The Ministry of Fisheries worked with industry to create five courses: Introduction to Seafood Processing & Quality, Introduction to Hazard Analysis Critical Control Point, Revising your Quality Management Plan, Chargehand, and Orientation to Sanitation & Hygiene. The courses will be offered this coming Fall through the B.C. Institute of Technology.

Harvest Management

A review of the Individual Vessel Quota/Groundfish Development Authority (IVQ/GDA) Plan was completed in November 1999. The review was jointly funded and supported by the ministry and the federal government and undertaken by the Groundfish Special Industry Committee. Its purpose was to see if the plan met its primary objectives and to recommend changes to DFO. The over-riding objectives of the plan are to ensure conservation, increase benefits derived from the fishery and ensure fair distribution of benefits arising from individual vessel quotas. A critical feature within the plan's implementation was a scheduled "moratorium" on one-way quota transfers beginning in May 2000.

The review and subsequent recommendations confirmed the overall success of the IVQ/GDA Plan. The review also recommended that the threat of a moratorium be replaced by a new set of transferability rules (to be adopted April 2003) which will render holding quotas by "investors" unattractive. This solution will provide a level of certainty within the fishery on which participants can make rational business decisions. All recommendations within the review are to be implemented April 1, 2000.

Dogfish

Currently, the dogfish fishery in B.C. is attracting new interest as markets for products are strengthening, and the seafood sector seeks opportunities to replace diminished salmon landings and revenues. Four million pounds of dogfish were harvested in 1999, producing dogfish backs and flaps for France, Germany, and the United Kingdom. Fins and tails were processed for the Asian market.

While the dogfish business may attract a host of B.C. fishermen and processing firms in the short term, a headlong expansion of processing effort may not be in the best interest of existing participants, coastal communities, or sustainable utilization of the dogfish resource.

Mindful of the negative effects which excess capacity may have on a fishery, the ministry's policy is to issue the privilege of dogfish processing only to those who have a history of

processing dogfish. In addition, the ministry commissioned a report to assess the current and expected state of the dogfish industry, and suggest policy options to guide processing capacity in this "re-emerging" fishery. The report will also examine other issues related to resource availability and processing capacity. The study is scheduled for completion by March 2000. At that time the restriction on dogfish processing will be reviewed and revised if necessary.

Squid, Pilchard and Mackerel

The Ministry of Fisheries co-manages the *squid, pilchard and mackerel fishery* with DFO. In 1999/2000 there were 22 squid, seven pilchard and 32 mackerel licences issued. Ministry staff consulted with their federal counterparts on the future expansion of the pilchard fishery and provided biological stock assessment information and observer and technical advice for the squid fishery. Staff also worked on the development of quality control and HACCP guidelines and procedures for onboard handling and fish-plant processing of sardines and mackerel.

Aquaculture

The Ministry of Fisheries regional staff provided extension services to freshwater and marine (salmon and shellfish) aquaculture businesses and their employees. Staff provided information and technical expertise on:

- ▲ business planning,
- ▲ technology transfer,
- ▲ capacity building and skills development,
- ▲ quality management, research and development (including new species),
- ▲ sustainable production practices; and
- ▲ Compliance with regulatory requirements.

The Ministry of Fisheries staff were instrumental in assisting the federal government, provinces and territories to develop a *National Code on the Introduction and Transfer of Aquatic Organisms*. The sectors, First Nations and environmental non-government organizations are currently reviewing the code for ratification by the Canadian Council of Fisheries and Aquaculture Ministers in Iqualuit, Nunavit in August 2000. The national code will standardize protocols and risk assessment guidelines for movements of fish, invertebrates and aquatic plants across Canada. The code will serve to protect native aquatic species and, at the same time, create opportunities for safe and responsible development of the aquaculture industry, and the commercial and recreational fisheries sectors.

Shellfish Aquaculture

In November 1998, the ministry introduced plans under the *Shellfish Development Initiative* (SDI) to help industry grow in B.C. by doubling the amount of Crown Land available for shellfish aquaculture to 4,230 hectares within 10 years. Studies have indicated that the industry could generate as much as $100 million annually and add 1,100 direct jobs.

Over the past year, the SDI accomplished three of its four key goals:

- A joint ministry and British Columbia Assets and Land Corporation's Shellfish Unit was established in Nanaimo, May 1999. The unit offers a "one-window" approach for shellfish aquaculture tenures and licensing.
- A new approach to fees and rents by developing a new, integrated pricing policy for shellfish aquaculture tenures was developed in consultation with industry.
- A process for existing tenure holders to apply for tenure expansions was initiated. As of March 2000, 67 applications for expansion of shellfish culture sites had been received and 66 entered the final stages of review. If all these applications are successful, they will represent an expansion area equal to 14 per cent of the existing industry.
- The process to create and conduct a process of community consultations on new shellfish industry development is currently under way. The province has established and funded several regional aquaculture steering committees. These committees, representing coastal and First Nation communities and industry, provide advice on acceptable siting and production levels for shellfish aquaculture within their area. To date, four of these committees are nearing the completion of their tasks. In the near future, these areas will be accepting applications for new tenures.

The ministry continued its support of the Baynes Sound Water Quality Remediation Project. Water-quality monitoring of storm drains by community volunteers and of marine stations in Comox Harbour by the Coast Guard Auxiliary was completed in March 2000. Results are being used to evaluate the effectiveness of storm drain/sewer repairs undertaken by local governments. Remediation of water quality, resulting in an upgrade of shellfish classification, has enabled shellfish harvest areas to remain open and the reopening of additional areas.

Salmon Aquaculture Policy Implementation

On October 18, 1999, the provincial government accepted the recommendations of the Environmental Assessment Office and created the new salmon aquaculture policy. The new provincial salmon aquaculture policy is designed to establish tough new environmental standards while bringing greater certainty to the existing salmon farming industry and recognizing the important economic opportunities it provides in bringing stability to coastal communities. It will address environmental and social concerns through the

staged implementation of a new regulatory and management framework.

Key components of the policy are escape prevention; a move to performance-based environmental regulation of salmon farm wastes; industry and community stability and improved salmon farm siting; improved fish health; and, encouraging the development of alternative salmon farm technology pilot projects.

In addition to routine inspections and enforcement activities, staff conducted a comprehensive investigation into escapes from salmon farms culminating in a public report aimed at providing a framework for government and industry to develop regulatory standards of operation to minimize the number of escapes. Staff also commenced a number of critical initiatives to strengthen its inspections and enforcement policy.

- A seven day, in-house, specialized investigations training program for inspectors.
- An improved salmon farm inspections regime for the 2000 season
- A plan to hire additional inspectors
- The use of a remote operating vehicle to take video footage of underwater containment net systems at salmon farms
- The development of an Inspections and Enforcement policy and procedures manual.

Measures aimed at reducing escapes from salmon farms include:

- strengthening the inspection and enforcement program through specialized training;
- Making recommendations towards the development of improved operation standards for the industry.

Implementation of the salmon aquaculture policy is being facilitated though several mechanisms of intergovernmental co-ordination. Within government, there is a Deputy Ministers' Salmon Aquaculture Steering Committee that provides broad policy direction regarding implementation of the policy. Project co-ordinators have been identified in BC Assets and Lands, The Ministry of Fisheries, the Ministry of Environment, Lands and Parks and the Department of Fisheries and Oceans (DFO) to co-ordinate implementation within and among agencies at a more technical level. A Fish Farm Review Committee with representatives of several ministries, DFO and the Coast Guard has been established to provide advice with respect to the relocation of poorly sited farms.

Stakeholder advice regarding overall implementation issues will be provided to government by the Salmon Aquaculture Implementation Advisory Committee. This committee was established in February 2000. Local advisory boards are being established where necessary to provide advice at a local and on a site-by-site basis.

The provincial salmon aquaculture policy establishes a two-year period during which government will work with industry, communities and First Nations to resolve outstanding resource-use conflicts and bring industry into compliance with more environmentally

sustainable management practices. The future direction of salmon farming will be evaluated after two years based on industry's compliance with environmental standards, technological development and consultation with coastal communities.

North and Central Coast Industry Development

The Ministry of Fisheries continued to support a Seafood Industry Development Coordinator in Prince Rupert. The co-ordinator's role is to facilitate new economic activity by identifying and exploring regional seafood economic opportunities. Activities over the past year have included the following:

- The North Coast Shared Community Shellfish Project has completed a two-year trial of Japanese scallop and Pacific oyster grow-out at sites in the Queen Charlotte Islands. Results are being published and used in considerations of potential shellfish tenures under the Shellfish Development Initiative in the North Coast area.
- Working with a contractor and local First Nations the ministry completed field surveys required for the North Coast Shellfish Aquaculture Biophysical Capability Survey. Shellfish capability studies throughout the coast have resulted in digital maps describing zones of capability for beach culture of oysters and clams and for deep-water culture of oysters and scallops. The maps are accompanied by data reports that provide details of the beach areas surveyed as well as photographs and information on the capability indices calculated. The studies will provide invaluable baseline data for siting farms, the Shellfish Development Initiative, and large-scale provincial planning initiatives.
- The Seafood Development Coordinator has participated in and provided invaluable input into federal/provincial projects aimed at new and developing fisheries including tanner crab and box crab.
- Provision of outreach services to local communities has resulted in several projects supported by the Community Economic Adjustment Initiative. Projects include the North Coast Biotoxin and Water Quality Program, Lax Kw'alaams Fish Plant Upgrades, Kitkatla Nation Abalone Rehabilitation Projects etc.
- The co-ordinator successfully organized the 1999 Northern Seafood Quality Expo and is currently coordinating the local shellfish steering committee for the Shellfish Development Initiative.

Canada-British Columbia Co-operation

The Canada-British Columbia Agreement on the Management of Pacific Salmon Fishery Issues endorses improved co-operation among governments and an enhanced role for British Columbia in the management of fisheries issues. Canada and British Columbia signed two bilateral agreements on May 18, 1999 to further these objectives. The agreements are:

- Data-sharing sub-agreement which proposes free exchange of "core fisheries datasets".
- Fisheries Management Protocol which calls for the development of joint steelhead management protocols for key stocks and watersheds to mitigate the problems of steelhead interceptions by commercial fisheries.

On April 12, 1999 federal, provincial and territorial fisheries ministers reached agreement in principle on a draft Agreement on *Interjurisdictional Co-operation with Respect to Fisheries and Aquaculture.* The agreement enables more regular and more effective opportunities for consultation on fisheries based on principles of co-operation such as timely consultation, information sharing in advance of announcements, transparency, and accountability. Six task groups were appointed under the Agreement to explore areas of mutual interest including aquaculture, freshwater fisheries, recreational fisheries, and a national code on introductions and transfers. Ministries of Fisheries staff are contributing to all of these initiatives.

Enhancement and Diversification of Recreational Fisheries

The province is responsible for the management of freshwater fish and sport fisheries. The ministry provides leadership in provincial fisheries management by co-ordinating and setting fisheries policies, fostering industry development, and implementing stock assessment and conservation programs.

- The ministry has worked closely with staff from the Ministry of Environment, Lands and Parks regional fisheries program and Fisheries and Oceans Canada to ensure the freshwater fishing regulations synopsis is available to the public before the start of the angling season. 425,000 synopses were distributed and 40 variation orders issued to amend freshwater angling regulations to respond to conservation concerns. The ministry also manages more than 600,000 licensing transactions annually through a network of 1,500 vendors across the province.
- The Sport Fishing Regional Economic Survey is expected to be completed for all 28 regional districts by the summer of 2000. The goal of this survey is to develop a practical economic assessment tool that can be used to accurately measure the full range of economic benefits derived from the sport-fishing industry down to the regional level.

Provincial Hatcheries and Stocking

The ministry operates a public fish hatchery program to support recreational fishing in B.C. Stocking programs delivered by the five ministry hatcheries support 50 per cent of angling effort in freshwater fisheries each year. In 1999, 1,070 lakes and streams were stocked with 8.9 million trout (rainbow, cutthroat and steelhead), eastern brook char and kokanee salmon. Most of the largest freshwater fisheries in the province depend upon annual stocking from provincial hatcheries. Stocking programs are delivered to provide a diversity of angling opportunities for recreational anglers and are designed to ensure that wild fish conservation objectives are not compromised.

- Provincial hatcheries continued development and production of non-reproductive fish in B.C. lakes in 1999. This included all eastern brook char, rainbow trout, and coastal cutthroat (non-anadromous) trout. Stocking of non-reproductive strains protects native wild fish populations and provides high-quality sport fisheries by eliminating early maturing fish that do not contribute to anglers catch.
- Special rainbow stocks that are suited to specific habitats, such as alkaline lakes or lakes with populations of non-game fish, were also stocked into BC lakes in 1999. Evaluation of these stocks is ongoing to determine how well the fish survive and

contribute to the sport fisheries in specific lake types. A Trout Strain Catalogue was developed to assist regional fisheries managers obtain optimal fish performance in stocked fisheries.

- The provincial Fish Health Laboratory delivered diagnostic services to the ministry to ensure that only healthy fish are stocked in public waters from provincial hatcheries. Adult brood stocks used for egg collections are screened annually for viral pathogens.
- Public Interpretation Centres were operated at four of the five provincial hatcheries and received 40,000 visitors in 1999. Many of the visitors were school children that came to learn about fish, fish habitat and fisheries. Interpretative programs were developed for school classes, group tours and special events.

Communications

The communications branch provides advice and support to the minister, deputy minister, executive management committee and program areas.

The branch works to increase public understanding of the ministry's programs and activities by responding to media and public inquiries, preparing and issuing news releases, organizing news conferences and special events, providing publication advice and overseeing communications aspects of the ministry's Web site.

The branch also receives public comments on policy and ensures that the minister's office is kept informed of public concerns. Staff handle media relations and issues management, write media issue notes and speeches for the minister and plan communications for all ministry activities.

In 1999-2000, a unit of four staff performed these daily communications functions and planned and delivered communications support for major initiatives in shellfish and salmon aquaculture.

Staff were also involved in the redesign of the ministry's Website to respond to increasing public demand for Internet information. In March 2000, the branch was merged with the communications branch from the Ministry of Agriculture and Food, but still provides specialized communications advice and support on fisheries matters.

Budget

Description	Actual Expenditures ($)
Minister's Office	398,995
Corporate Services	
Deputy Minster's Office	566,397
Executive Services	755,757
Communications Branch	374,187
Total	1,696,341
Policy, Planning and Liaison	
Assistant Deputy Minister, Policy, Planning and Liaison	181,188
Policy and Legislation Branch	813,388
Intergovernmental Relations Branch	809,528
Total	1,804,104
Programs and Operations	
Assistant Deputy Minister, Programs and Operations	794,834
Fisheries Management Branch	3,816,187
Sustainable Economic Development Branch	9,144,092
Information Services Branch	1,300,589
Total	15,055,702
Total Ministry Operations	18,955,142
Total Voted Expenditures	19,332,000

The Ministry of Fisheries was merged with the Ministry of Agriculture and Food in March 2000. The 1999-2000 public accounts will report final expenditure numbers for both agencies as the Ministry of Agriculture Food and Fisheries.

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